

## WHAT IS CLAIMED IS:

### Claims

1. Device for fixing a catheter (1), such as a peripheral venous catheter, a central venous catheter or a central arterial catheter, or a puncture needle, such as a Huber needle bent at a right angle to the body of a patient, characterized in that it comprises a housing (5) which can be closed by a lid (6), a base (7) which is integral to the housing (5) by surrounding it, enabling the fixation of the housing (5) to the skin of the patient, where the housing (5) comprises two chambers (8,9) which communicate with each other, a first chamber (8) which is located above the puncture site of the catheter or of the needle (1) and traversed by the external part (1a) of the catheter (1) which is placed in the vein or the artery (2), or by the needle (1) which is implanted in the body of the patient, and a second chamber (9) which allows the accommodation of a base (3) of the catheter or of the needle (1), which base (3) is retained in the second chamber and connected to at least one external tube (4), which is in fluid communication with the catheter or the needle (1) through the base (3).

2. Device according to Claim 1, used for fixing a catheter (1) whose base (3) constitutes a small reservoir for connection to the external tube (4), characterized in that the housing (5) is flat and it projects with its base (7) over a relatively small height, and in that the first chamber and the second chamber (8,9) are located approximately in the same plane, and the lid (6) comprises, on its internal face, two pads (13) which penetrate into the second chamber (9) with lid (6) closed so that they rest, respectively, against two lateral faces (3a) of the base (3) of the catheter (1) to hold the base bilaterally with respect to the flat bottom of the second chamber (9), which is also fixed to the skin of the patient.

3. Device according to Claim 2, characterized in that two pads (13) rest, with lid (6) closed, respectively against two wings (3b), which extend on either side of the lateral faces (3a) of the base (3) of the catheter (1) to hold the latter base applied against the bottom of the second chamber (9).

4. Device according to Claim 2 or 3, characterized in that the two chambers (8,9) are separated from each other by a wall (12), whose upper face is located in the plane of the upper face (5a) of the housing (5) and which comprises a communication passage (10), which is defined by two oblique lateral faces (11), which are perpendicular to the bottom of the second chamber (9) and converge towards the first chamber (8), and in that the base (3) of the catheter (1) has its lateral faces forming an extension of those retained by the pads (13) whose shape matches the lateral faces (11) of the passage (10) to allow the base (3) of the catheter (1) to partially engage in the passage (10) and to be retained therein.

5. Device according to one of Claims 2-4, characterized in that the first chamber (8) has a bottom which consists of a relatively thin flexible membrane (17), which is fixed to the skin of the patient and comprises an orifice (18) which allows the passage of the base of the catheter (3) and of this catheter.

6. Device according to Claim 5, characterized in that the membrane (17) comprises slits (19) which start from the edge which delimits the orifice of the above-mentioned passage (18).

7. Device according to one of Claims 2-4, characterized in that the lid (6) comprises, at its internal face, two other pads (14) which penetrate into the first chamber (8) with lid (6) closed so that they are arranged on either side of the external part (1a) of the catheter (1) which is placed in the vein (2), by closing off to a large extent this chamber and coming to rest against the skin of the patient.

8. Device according to Claim 7, characterized in that each pad (14) comprises on its face (14a) in contact with the skin a colloid which can contain an antiseptic or antimicrobial substance.

9. Device according to one of Claims 2-8, characterized in that the housing (5) comprises on its upper face (5a), which delimits the second chamber (9), opposite the communication (10) between the two chambers (8,9), at least one longitudinal groove

(15) for receiving the external tube (4), or which is connected to the base (3) of connection to the catheter (1), and the internal face of the lid (6) also comprises at least one longitudinal groove (16) which is located above the groove (15) of the housing (5) with lid (6) closed, to hold the tube (4) relative to the housing (5), where the tube (4) which exits from this housing can be connected to means for blood perfusion, transfusion or sampling.

10. Device according to one of Claims 2, 5 and 8, characterized in that the second chamber (9) opens directly into the first chamber (8) and it consists of a hollow part whose shape works in cooperation with an identical hollow part defined between the two pads (13) of the lid (6) to form, with lid (6) closed, a recess which matches the base (3) of the central arterial catheter (1), which makes it possible to retain this base in the housing (5).

11. Device according to one of the preceding claims, characterized in that the base (7) for fixing the housing (5) consists of a sheet of flexible material which is molded with the housing (5) and, if applicable, the membrane (17) of the first chamber (8), where the faces of the bottom of the second chamber (8) and the membrane (17) which is applied against the skin of the patient are continuous with the application face of the base (7) on the skin.

12. Device according to Claim 11, characterized in that the base (7) for fixing the housing (5) comprises at least two support holdfasts (7a), each having the shape of an ear.

13. Device according to Claim 12, characterized in that the base (7) comprises four support holdfasts (7a) in the form of ears.

14. Device according to one of the preceding claims, characterized in that the lid (6) is mounted by articulation to the housing (5) and it can be latched to the latter by a ratchet mechanism.

15. Device according to one of the preceding claims, characterized in that the base (7) of the housing (5) is fixed to the skin of the patient by a colloid which can contain antiseptic or antimicrobial substances.

16. Device according to Claim 1, which is used for fixing a Huber needle bent at a right angle, characterized in that the second chamber (9) is made through a wall of the housing (5) and it opens directly into the first chamber (8) at its upper part, where the chamber (9) has a transverse cross section in the shape of a U whose lateral walls diverge from the first chamber (8) to accommodate the truncated base (3), whose shape matches that of the second chamber (9), of the needle (1), and in that the base (3) of the needle (1) is retained in the second chamber by at least two opposed catches (9c), which are integral parts of the respective lateral walls of the second chamber (9) at their upper part, barely touching the planar upper face (5a) of the housing (5), where the catches (9c) are elastically deformable towards the bottom of the second chamber (9) to allow the base (3) to be pushed into the chamber (9) by embedding through the catches (9c) which rest on the base (3) to retain it in the second chamber.

17. Device according to Claim 16, characterized in that it comprises two elastically deformable catches (9c), which are arranged in the upper part of the corresponding lateral wall of the second chamber (9) by being spaced along this wall, where two opposed catches (9c) are transversely spaced from each other.

18. Device according to Claim 17, characterized in that a groove (9d) is made in the second chamber (9) between two spaced pairs of catches (9c), and it is intended to receive the pad part (4a) for connection of an external tube (4) to the truncated end of the base (3) of the Huber needle (1) in the position where the latter is mounted in the housing (5).

19. Device according to one of Claims 16-18, characterized in that the housing (5) has the general shape of a bell whose wall opens outside of the second chamber (9) and comprises at its lower part a notch (5b) which disengages the corresponding base part (7) of the housing (5) to confer a certain degree of flexibility to this base part (7).

20. Device according to Claim 19, characterized in that the wall of the housing (5), opposite the wall comprising the notch (5b), also comprises at its lower part a notch (5c) which disengages the corresponding part of the base (7) of the housing (5) to confer a certain degree of flexibility to this base part (7).

21. Device according to one of Claims 16-20, characterized in that the housing (5) is fixed to the body of the patient so that the first chamber (8) is located vertically with respect to a chamber which is implanted under the skin and intended to receive the free end of the Huber needle (1), which is fixed in the second chamber (9).